

Taxonomic study on new-record genus *Bambusana* Anufriev (Hemiptera: Cicadellidae: Deltocephalinae) in China

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Abstract

The species of *Bambusana* Anufriev, 1969 from China are studied, and two new species, *B. fopingensis* sp. nov. and *B. multidentata* sp. nov., are described as new. Both the genus and its type species, *B. bambusae* (Matsumura, 1914), are reported for the first time from China. The type and other material are deposited separately in the Institute of Zoology, Chinese Academy of Sciences (IZCAS) and Entomological Museum of Northwest A&F University (EM), which are indicated under each species.

Key words: Hemiptera, Cicadellidae, Deltocephalinae, *Bambusana*, new species, new record, China

Introduction

The leafhopper genus *Bambusana* (Deltocephalinae: Athysanini) was established by Anufriev (1969) for two species from Japan, *B. bambusae* (Matsumura, 1914), the type species, and *B. jenjouristi* Anufriev, 1969. Apart from being catalogued by Hamilton (1975) and briefly mentioned by Anufriev & Emeljanov (1988) in their description of insects of the Soviet Far East, the genus has received no attention.

During study on the Chinese Deltocephalinae, we examined the specimens in the main insect collections on mainland China, including the collections of the Institute of Zoology, Chinese Academy of Sciences, and those in our own institution. We found specimens of *Bambusana* from China for the first time, represented by its type species and two new species. The new species are described in this paper and a key is provided for the separation of all four known species.

The type and other material are deposited separately in the Institute of Zoology, Chinese Academy of Sciences (IZCAS) and Entomological Museum of Northwest A&F University (EM), as indicated under each species.

***Bambusana* Anufriev, 1969**

Bambusana Anufriev, 1969: 403. Type species: *Thamnotettix bambusae* Matsumura, 1914, by original designation.

Body elongate, fairly slender. Head including eyes slightly wider than pronotum. Crown longer medially than next to eyes, shorter than width between eyes; anterior margin roundly produced anteriorly in dorsal view; disc somewhat flat. Transition of vertex and frontoclypeus rounded. Eyes fairly large; ocellus situated on frontal lateral margin of crown next to corresponding eye, separated from eye by distance equal to or wider than ocellus diameter. Clypellus slightly expanded apically. Pronotum with anterior margin roundly produced and posterior margin slightly concave. Scutellum almost equal to length of pronotum, with transverse suture curved and depressed. Forewing elongate, narrow; appendix wide.

Male genitalia with pygofer side elongate, with one or two well sclerotized processes on ventral margin; several macrosetae posteriorly. Valve narrowly triangular, equal to length of subgenital plate. Subgenital plate elongate, triangular, a uniseriate row of macrosatae along ventrolateral margin. Connective Y-shaped, shaft longer than arms. Styles elongate, apical process short to long, tapered to acute apex; lateral lobe weakly developed, with a few fine setae. Aedeagus with basal apodeme short to long, shaft elongate, cylindrical, curved dorsally; phallotreme apical.

Distribution: China, Japan.

Key to species of genus *Bambusana* (males)

1. Aedeagal shaft with a ventro-basal tooth-like process (fig.18)..... 2
- Aedeagal shaft with several small denticles basally (figs.7–8,12–13)..... 3
2. Pygofer side a serrated protrusion subapically on ventral margin; connective arms nearly parallel (figs. 14,17) *bambusae* (Matsumura)
- Pygofer side with a notched protrusion at mid-length of ventral margin; connective arms divergent *jenjouristi* Anufriev
3. Pygofer side with a process at ventral margin (fig.3)..... *fopingensis* **sp. nov.**
- Pygofer side with ventral margin dentate (fig.9)..... *multidentata* **sp. nov.**

***Bambusana fopingensis* sp. nov.**

(Figs.1–8)

Brownish yellow. Vertex with a transverse brown band between ocelli. Face with frontoclypeus along fore border brown.

External features as in generic description.

Male genitalia with pygofer side elongate, with a strong ventro-caudal process; several macrosetae posteriorly. Subgenital plate long, lateral margin slightly incurved at mid-length, with a uniseriate row of macrosetae ventrally from base to apex, apical margin rounded. Connective Y-shaped, shaft robust, longer than arms. Style with apical process moderately long, lateral lobe weakly developed. Aedeagus with basal apodeme short; shaft long and thin, directed dorsad with several small denticles basally on ventral margin, phallotreme apical.

Measurement

Male 6.5mm long (including tegmen).

Material examined

Holotype, ♂, China: Shaanxi province, Foping County, 24.VII.1998, Chen Jun (IZCAS).

Remarks

This species is similar to *multidentata* but can be separated from the latter by crown with a brown transverse band, the pygofer side having a long ventro-caudal process, and the style with the lateral lobe weakly developed.

Etymology

The specific name is derived from the type locality.

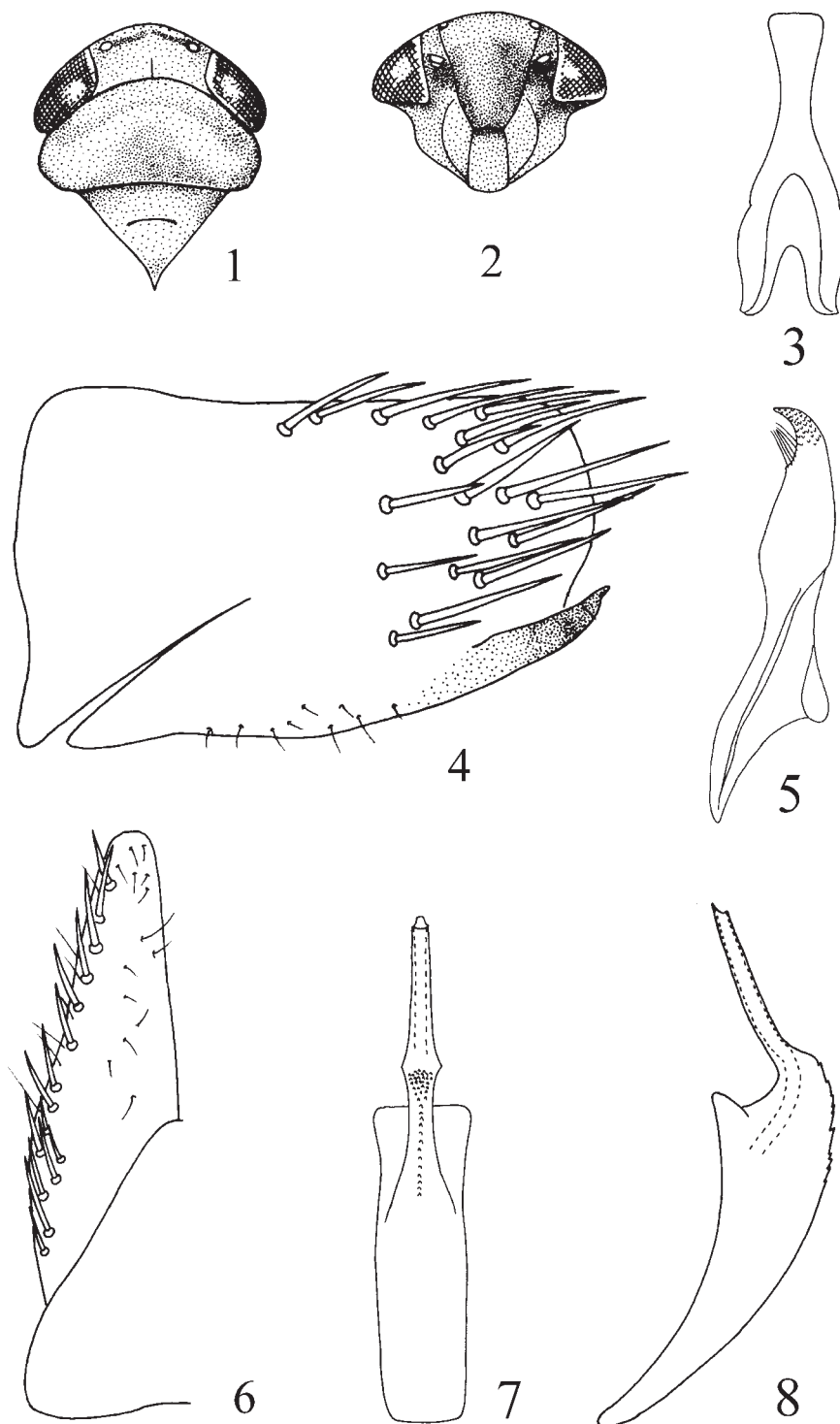
***Bambusana multidentata* sp. nov.**

(Figs 9–13)

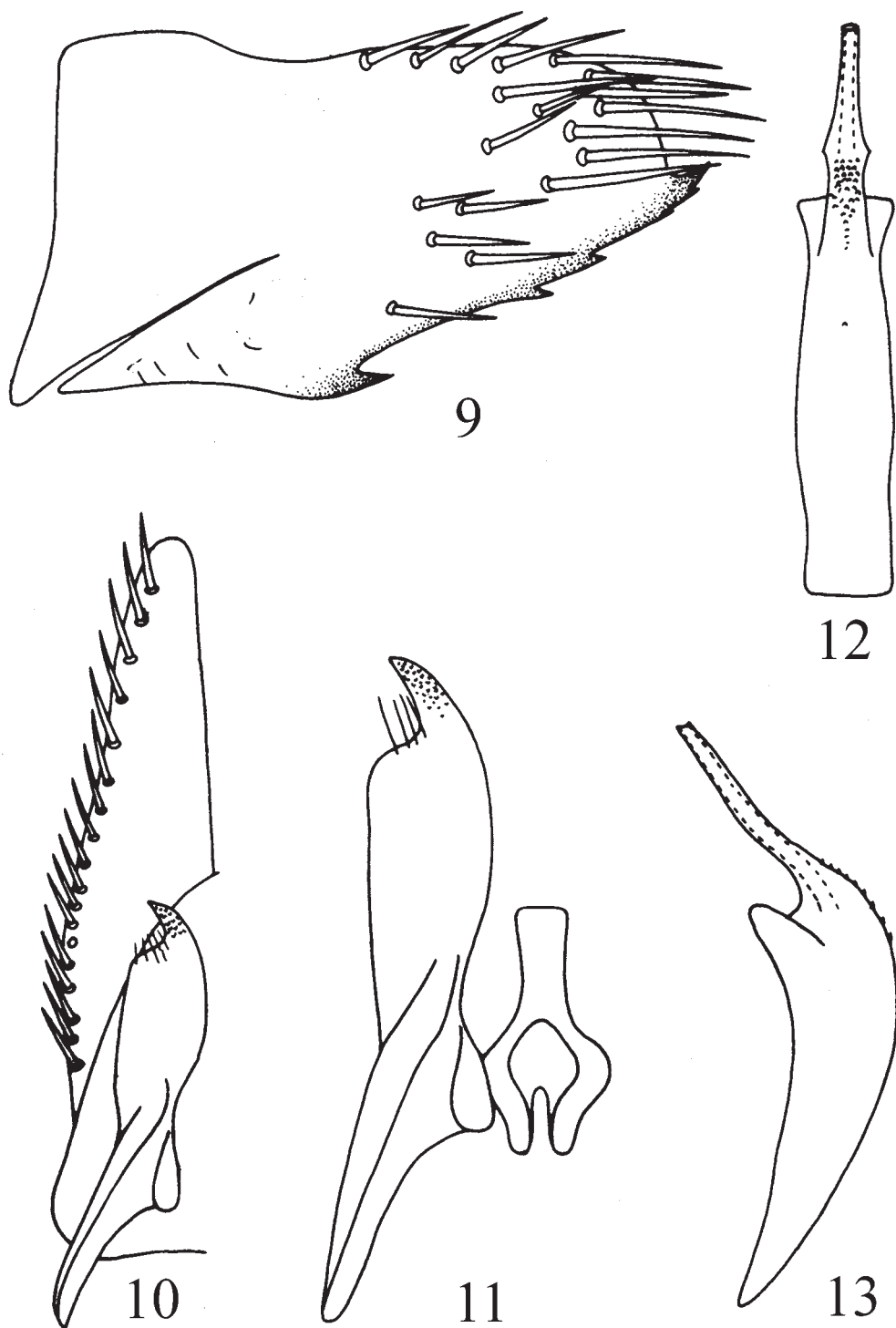
Brownish yellow. Face with frontoclypeus along fore border brown, antennal pit black.

External features as in generic description.

Male genitalia with pygofer side elongate, strongly dentate at ventro-caudal margin; several macrosetae posteriorly. Subgenital plate long, lateral margin slightly incurved at mid-length, with a uniseriate row of macrosetae ventrally from base to apex, apical margin rounded. Connective Y-shaped, shaft robust slight longer than arms. Style with apical process moderately long, lateral lobe well developed. Aedeagus with basal apodeme short; shaft long and thin, directed dorsad with several small denticles on ventral margin, phallotreme apical.



FIGURES 1–8. *Bambusana fopingensis* sp. nov. 1. head and thorax, dorsal view; 2. face; 3. connective; 4. pygofer side, lateral view; 5. style, dorsal view; 6. male valve and subgenital plates, ventral views; 7. aedeagus, ventral view; 8. aedeagus, lateral view.



FIGURES 9–13. *Bambusana multidentata* **sp. nov.** 9. pygofer side, lateral view; 10. male velle, subgenital plates and style, ventral views; 11. style and connective, dorsal view; 12. aedeagus, ventral view; 13. aedeagus, lateral view.

Measurement

Male 6.5mm and female 6.6–6.8mm long (including tegmen).

Material examined

Holotype, ♂, China: Guizhou province, Leigongshan Mountian, 3.VII.1997, Zhang Yazhou. Paratype, 1♂, 3♀ as to Holotype; 1♂, 6♀, Guizhou province, Fanjingshan Mountian, Huguosi 1.VIII. 2001, Sunqiang (all above in EM).

Remarks

This species is similar to *B. fopingensis*, but can be separated from the latter by having the pygofer side strongly dentate ventro-caudally and the style with the lateral lobe well developed.

Etymology

This new species is named for the strongly dentate ventro-caudal margin of the male pygofer.

***Bambusana bambusae* (Matsumura, 1914)**

(Figs. 14–19)

Thamnotettix bambusae Matsumura, 1914, J. Coll. Agric. Sapporo, 5, 7: 176

Elymana bambusae: Ishihara, 1953: 41

Bambusana bambusae: Anufriev, 1969, 404

Material examined

1♂, China: Gansu Prov., Chengxian County, 25.VII. 2002, Wei Cong and Shang Suqin(EM).

Distribution

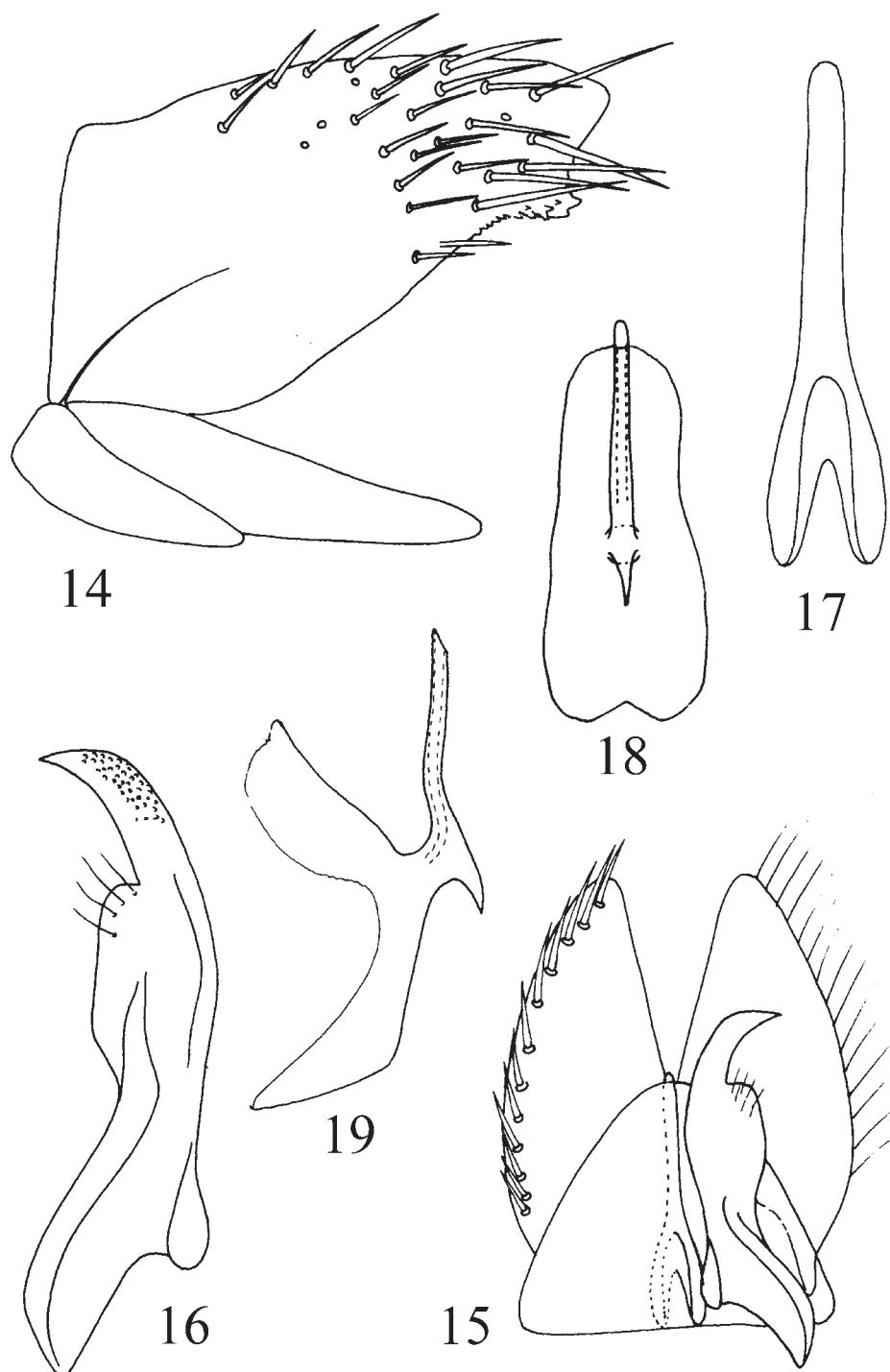
China (Gansu), Japan.

Note

This species is new to China.

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FIGURES 14–19. *Bambusana bambusae* (Matsumura, 1914) 14. pygofer, lateral view; 15. male velle, subgenital plates, style and connective: ventral (left) and dorsal (right) views; 16. style; 17. connective; 18. aedeagus, ventral view; 19. aedeagus, lateral view.

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